US 20020075714A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2002/0075714 A1

Pereira et al. (43) Pub. Date: Jun. 20, 2002

(54) CONTENT ADDRESSABLE MEMORY WITH CONFIGURABLE CLASS-BASED STORAGE PARTITION

(76) Inventors: **Jose P. Pereira**, Cupertino, CA (US); **Varadarajan Srinivasan**, Los Altos Hills, CA (US)

Correspondence Address:
Charles E. Shemwell
Suite 204
998 East El Camino Real
Sunnyvale, CA 94087-7913 (US)

(21) Appl. No.: **09/940,832**

(22) Filed: **Aug. 27, 2001**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/590,642, filed on Jun. 8, 2000, now patented. Continuation-in-part of application No. 09/590,428, filed on Jun. 8, 2000. Continuation-in-part of application No. 09/590,775, filed on Jun. 8, 2000. Continuation-in-part of application No. 09/594,206, filed on Jun. 14, 2000. Continuation-in-part of application No. 09/594,209, filed on Jun. 14, 2000. Continuation-in-part of application No. 09/594,201, filed on Jun. 14, 2000. Continuation-in-part of application No. 09/594,194, filed on Jun. 14, 2000. Continuation-in-part of application No. 09/594,202, filed on Jun. 14, 2000.

Publication Classification

(51) **Int. Cl.**[7] **G11C 15/00**

(52) **U.S. Cl.** **365/49**

(57) **ABSTRACT**

A content addressable memory (CAM) device having a plurality of CAM blocks and a block selection circuit. Each of the CAM blocks includes an array of CAM cells to store data words having a width determined according to a configuration value. The block selection circuit includes an input to receive a class code and circuitry to output a plurality of select signals to the plurality of CAM blocks. Each of the select signals selectively disables a respective one of the plurality of CAM blocks from participating in a compare operation according to whether the class code matches a class assignment of the CAM block.